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SYMBOL
STAGE THREE LEVEL SELECT
ELEMENT IDENT
A

TERM. NO.	FNCT.	TERM.	LOC.
GAL01	I	100	282
GAL02	002	002	282
GAL03	004	004	282
GAL04	005	005	282
GAL05	001	001	282
GAL06	001	001	282
GAL07	102	102	282
GAL08	104	104	282
GAL11	119	119	282
GAL12	119	119	282
GAL13	119	119	282
GAL14	119	119	282
GAL15	019	019	282
GAL16	019	019	282
GAL17	017	017	282
GAL18	016	016	282
GAL19	016	016	282
GAL20	007	007	282
GAL21	008	008	282
GAL22	009	009	282
GAL23	010	010	282
GAL24	011	011	282
GAL25	012	012	282
GAL26	013	013	282
GAL27	014	014	282
GAL28	015	015	282
GAL29	016	016	282
GAL30	017	017	282
GAL31	018	018	282
GAL32	019	019	282
GAL33	020	020	282
GAL34	021	021	282
GAL35	022	022	282
GAL36	023	023	282
GAL37	024	024	282
GAL38	025	025	282
GAL39	026	026	282
GAL40	027	027	282
GAL41	028	028	282
GAL42	029	029	282
GAL43	030	030	282
GAL44	031	031	282
GAL45	032	032	282
GAL46	033	033	282
GAL47	034	034	282
GAL48	035	035	282
GAL49	036	036	282
GAL50	037	037	282
GAL51	038	038	282
GAL52	039	039	282
GAL53	040	040	282
GAL54	041	041	282
GAL55	042	042	282
GAL56	043	043	282
GAL57	044	044	282
GAL58	045	045	282
GAL59	046	046	282
GAL60	047	047	282
GAL61	048	048	282
GAL62	049	049	282
GAL63	050	050	282
GAL64	051	051	282
GAL65	052	052	282
GAL66	053	053	282
GAL67	054	054	282
GAL68	055	055	282
GAL69	056	056	282
GAL70	057	057	282
GAL71	058	058	282
GAL72	059	059	282
GAL73	060	060	282
GAL74	061	061	282
GAL75	062	062	282
GAL76	063	063	282
GAL77	064	064	282
GAL78	065	065	282
GAL79	066	066	282
GAL80	067	067	282
GAL81	068	068	282
GAL82	069	069	282
GAL83	070	070	282
GAL84	071	071	282
GAL85	072	072	282
GAL86	073	073	282
GAL87	074	074	282
GAL88	075	075	282
GAL89	076	076	282
GAL90	077	077	282
GAL91	078	078	282
GAL92	079	079	282
GAL93	080	080	282
GAL94	081	081	282
GAL95	082	082	282
GAL96	083	083	282
GAL97	084	084	282
GAL98	085	085	282
GAL99	086	086	282
GAL100	087	087	282

SYMBOL		
118	GAL11	PJ1
100	GAL01	PJ2
117	GAL12	PJ3
002	GAL02	PJ4
116	GAL13	PJ5
004	GAL03	PJ6
115	GAL14	PJ7
005	GAL04	PJ8
019	GAL15	PJ9
001	GAL05	PJ10
018	GAL16	PJ11
101	GAL06	PJ12
017	GAL17	PJ13
102	GAL07	PJ14
016	GAL18	PJ15
104	GAL08	PJ16
015	GAL19	PJ17
105	GAL09	PJ18
318	PJ	
317	PJ	
316	PJ	
315	PJ	
114	GAL11	
006	GAL01	
113	GAL12	
007	GAL02	
112	GAL13	
008	GAL03	
111	GAL14	
009	GAL04	
018	GAL15	
109	GAL05	
013	GAL16	
107	GAL06	
012	GAL17	
008	GAL07	
009	GAL08	
010	GAL09	
108	GAL10	
310	GAL11	
311	GAL12	
312	GAL13	
313	GAL14	

FC190
STAGE THREE
LEVEL SELECT

RECORD OF CHANGES				
DATE	PREV	STD	NFR	SEE
ISS	FNCT			DISC

CIRCUIT DESCRIPTION

FUNCTIONS

THIS CIRCUIT PACK PROVIDES TWO PULSE PATH SELECTION CIRCUITS. IN EACH CIRCUIT THE HIGH CURRENT PULSE PATHS ARE CONTROLLED FROM RELATIVELY LOW POWER SIGNALS ON INPUT LEADS. THIS CONTROL IS PROVIDED FOR SPECIFICATED CONTROLLERS.

DETAILED DESCRIPTION

IN THE UPPER CIRCUIT THE HIGH AMP CURRENT FLOWS INTO THE P2 LEAD AND OUT ONE OF THE LEADS P21-8, P26. THE PARTICULAR PATH USED IS SELECTED BY APPLYING 15 VOLTS TO ONE OF THE INPUT LEADS GAL01-08, GAL11-18, P2L50,1 AND GROUNDING LEAD 1A.

IN THE LOWER CIRCUIT THE HIGH AMPLITUDE CURRENT PULSE FLOWS INTO ONE OF THE LEADS P41-8 AND OUT THE P4 LEAD. ONE OF THE EIGHT PATHS IS SELECTED BY APPLYING 15 VOLTS TO ONE OF THE INPUT LEADS GAL01-08, GAL11-18 AND GROUNDING LEAD 1A.

NOTES:

- UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS
CAPACITANCE VALUES ARE IN MICROFARADS
VALUES PRECEDED BY THE SYMBOL - (PLUS)
OR - (MINUS) ARE IN VOLTS.

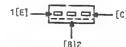
- POWER AND GROUND TERMINALS FOR INTEGRATED CIRCUITS:

IC CODE	220 TERM.

- BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS:

FUNCTION	TERMINAL

- THE TERMINAL NUMBER ARRANGEMENT OF THE 95A TRANSISTOR IS:



- CLOSEST HORIZONTAL MOUNTING CENTERS IS 0.750 INCH.
- INITIAL USE OF THE FC190 CIRCUIT PACK IS IN 50-SH110-01.

SYSTEM USED ON	DESIGN CONTROL
2. 5 ESS	1H

CURRENT DRAIN: 0.46

SHEET INDEX NOTES

SUPPORTING INFORMATION	
CATEGORY	NUMBER
CONNECTOR ON FRAME	947A 947C ON 947E
CIRCUIT PACK INFORMATION DRAWING	
SERIES FOR LATEST CLASS "A" CHANGE	
ACCEPTABLE SERIES	3

NOTICE - NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

FC190 CIRCUIT PACK STAGE THREE LEVEL SELECT CIRCUIT	1T11
STATO. SYMBOL	

DWG SIZE	ISSUE
6S	2D1

BELL LABORATORIES	CPS-FC190	2 SHEETS
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COMPONENT LIST

CAPACITOR

DESIG	CODE
[17]C1-C17	45-20756, L1, .1
DIODE	CODE
[18]CR1-CR18	4568
[9]CR19-CR26	5758
[16]CR27-CR42	4568

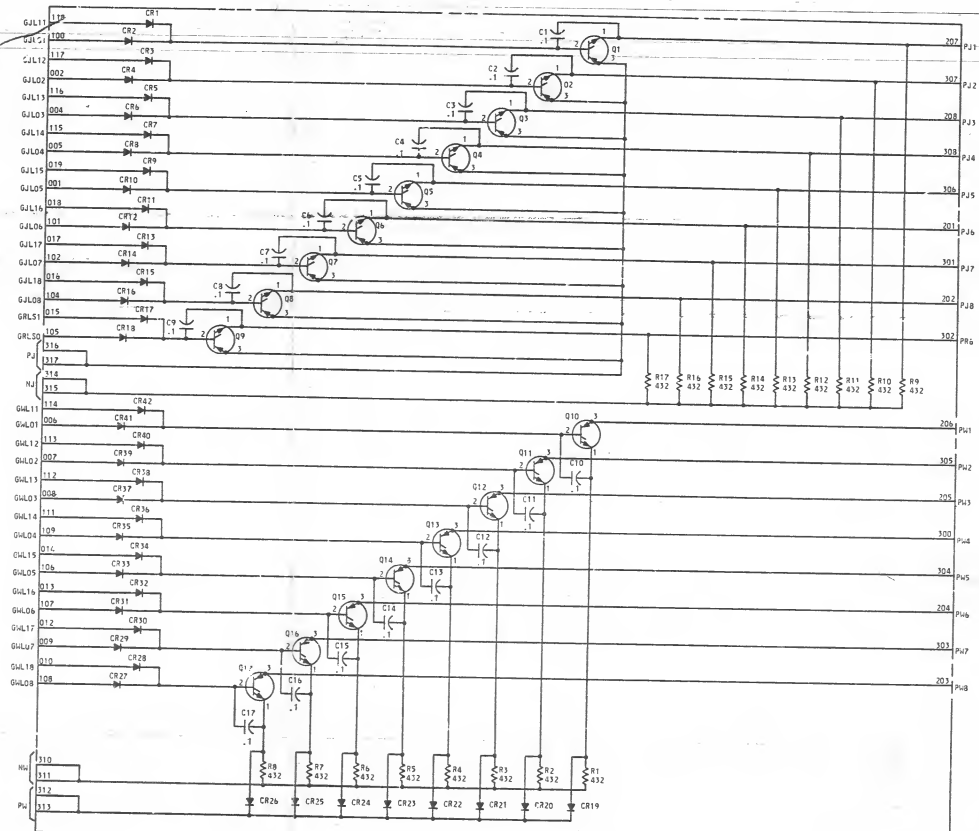
RESISTOR

DESIG	CODE
[17]R1-R17	KS-20810, L13, 432

TRANSISTOR

DESIG	CODE
[17]Q1-Q17	85A

STAGE THREE LEVEL SELECT CIRCUIT



201

FC190 CIRCUIT PACK

BELL TELEPHONE LABORATORIES
INCORPORATEDCPS-FC190
SHEET 2

65